

Notice of Allowability

Application No.

10/718,497

Examiner

VAN H. NGUYEN

Applicant(s)

KUMAR ET AL.

Art Unit

2194

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 11/05/2009 and the telephonic interview on 01/12/2010.
2. ☒ The allowed claim(s) is/are 1-6, 8, 11-15, 27, 29, 32, 42, and 43 (renumbered as claims 1-17).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20100112.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview
With Denis G. Maloney (Reg. No. 29, 670) on 01/12/2010.

The application has been amended as follows:

In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A method comprising:
at a computer, dynamically binding an event context to an execution context in response to receiving events by:
maintaining the execution context in an idle state until an event arrives at a head of a global event queue that is accessible by event contexts;

storing, in a memory associated with the computer, arriving events into the global event queue;

storing, in the memory, events from the global event queue in per-execution context event queues; and

associating, at the computer, an event queue with the execution context to temporarily store events for the event context for a duration of the dynamic binding;

removing an event from the events for the event context in the event queue;

placing the event in the event queue of other execution context to which the event context associated with the event is already bound to;

determining the event context;

determining if the event context to which the event belongs is already bound to the execution context;

unbinding the event context; and

returning to the idle state.

2. (Previously Presented) The method of claim 1 wherein the execution context can be in one of four states, idle, binding, bound, or unbinding.

3. (Original) The method of claim 1 wherein in the bound state, an execution context is bound to a specific event context and the execution context processes events for that event context and the event queue associated with that execution context is used to store events for the event context to which it is bound.

4. (Original) The method of claim 1 wherein in the unbinding state, the execution context determines if it has any more events to process for the event context to which it was bound and either unbinds itself from the event context, going to idle state or begins processing another event from that context, going back to bound state.
5. (Original) The method of claim 1 wherein in the event context can be in one of two states, unbound or bound.
6. (Previously Presented) The method of claim 1 wherein a global FIFO event queue is used to queue events when the events first arrive into a system.
7. (Canceled)
8. (Previously Presented) The method of claim 1 wherein upon receiving an event, the method further comprises:
assigning an execution context that is in idle state to process the event.
- 9.-10. (Canceled)
11. (Currently Amended) The method of claim [[10]] 1 wherein if the event context is not already bound, binding an execution further comprises:

binding the execution context to that event context by updating a state of the execution context from idle to bound, updating the state of the event context from “not bound” to bound, and recording that this execution context is bound to this event context; and
processing the event.

12. (Previously Presented) The method of claim 11 wherein when the execution context completes processing the event, the execution context transitions to an unbinding state.

13. (Previously Presented) The method of claim 12 wherein when the execution context completes processing the event, the execution context checks its event queue for additional events to process.

14. (Previously Presented) The method of claim 12 wherein if there is at least one event in the event queue, the execution context returns to the bound state, removes the event from the event queue and processes the event, otherwise the execution context unbinds itself from the event context, and transitions to an idle state.

15. (Original) The method of claim 1 wherein the events are packets.

16-26. (Canceled)

27. (Currently Amended) A computer program product residing on a computer readable medium for dynamically binding an event context to an execution context in response to receiving events comprising instructions for causing a processor to:

maintain the execution context in an idle state until an event arrives at a head of a global event queue that is accessible by event contexts;

store events into the global event queue;

store events from the global event queue in per-execution context event queues;

and

associate a FIFO event queue with the execution context to temporarily store events for the event context for a duration of the dynamic binding;

remove an event from the events for the event context in the FIFO event queue;

place the event in the FIFO event queue of other execution context to which the event context associated with the event is already bound to;

determine the event context;

determine if the event context to which the event belongs is already bound to the execution context;

unbind the event context; and

return to the idle state.

28. (Canceled)

29. (Previously Presented) The computer program product of claim 27 wherein upon receiving an event, the method further comprises instructions to:

assign an execution context that is in idle state to process the event.

30.-31. (Cancelled)

32. (Previously Presented) The computer program product of claim 27 wherein if the event context is not already bound, instructions to bind an execution further comprises instructions to:

bind the execution context to that event context by updating a state of the execution context from idle to bound;

update the state of the event context from "not bound" to bound;

record that this execution context is bound to this event context; and

process an event.

33-41. (Canceled)

42. (Currently Amended) A computer system comprising:

a processor including multiple processing engines, each processing engine including multiple event contexts;

circuitry to dynamically bind an event context to an execution context in response to receiving an event and maintain the execution context in an idle state until an event arrives at a head of a global event queue that is accessible by all event contexts;

the global event queue to store arriving events;

per-execution context event queues to store events from the global event queue;

and

a FIFO event queue to temporarily store events for that event context for a duration of the binding, the circuitry further configured to:

remove an event from the events for the event context in the FIFO event queue;

place the event in the FIFO event queue of other execution context to which the event context associated with the event is already bound to;

determine the event context;

determine if the event context to which the event belongs is already bound to the execution context;

unbind the event context; and

return to the idle state.

43. (Previously Presented) The apparatus of claim 42 wherein the global event queue is used to queue events when the events first arrive into the computer system.

44-51. (Canceled)

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HYUNG S. SOUGH can be reached at (571) 272-6799.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair.direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/

Primary Examiner, Art Unit 2194